

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Song
Serial No.: 10/770,893
Filed: February 3, 2004
Group Art Unit: 1793
Examiner: Christopher S. Kessler
Title: CASTABLE HIGH TEMPERATURE ALUMINUM ALLOY

Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

In response to the final office action dated April 2, 2009 and the Advisory Action dated June 4, 2009, Applicant respectfully submits a Pre-Appeal Brief Request for Review. This request is filed with a Notice of Appeal. As will be explained in further detail, the Review is requested for the reasons set forth below.

- I. Claims 1-4, 10-13, and 26-29 were improperly rejected under 35 U.S.C. §103(a) as being unpatentable over Watson.
- II. Claims 1-5, 7, 8, 10-16, and 27-29 were improperly rejected under 35 U.S.C. §103(a) as being unpatentable over Higashi.
- III. Claims 1-3, 7-12, 15, 16, 26, and 27 were improperly rejected under 35 U.S.C. §103(a) as being unpatentable over EP 750911 (hereafter “EP 911”).
- IV. Claims 5 and 6 were improperly rejected under 35 U.S.C. §103(a) as being unpatentable over Watson in view of Higashi.

Arguments

I. Rejection of claims 1-4, 10-13 and 26-29 under §103(a).

The Examiner asserts that the Watson reference teaches that scandium, erbium and ytterbium are equivalent $L1_2$ formers on the basis that the use of scandium is merely a preferred embodiment in Watson (MPEP 2123). Indeed, a reference may be relied upon for all that it would have reasonably suggested to one of ordinary skill in the art, including non-preferred embodiments. A reference disclosing optional inclusion of a particular component teaches compositions that both do and do not contain that component. However, this is not the case in Watson. The Examiner appears to rely on isolated portions of Watson, taken out of context, to support the proposition that scandium is merely a preferred embodiment. The Watson reference taken as a whole does not appear to support such an interpretation. The outset of the detailed description of Watson (col. 2, lines 7-11) states that the “present invention” of Watson is based on the broad alloy composition having 3-16 wt. % of scandium and the problem addressed relates to the dispersion of Al_3Sc particles in this alloy (col. 2, line 31). Thus, even though the Examiner may be able to point to isolated portions of Watson which, out of context, might seem to support the Examiner’s interpretation, Watson as a whole is explicitly limited to alloys that include scandium. The example alloys (beginning col. 4, line 5) each include scandium and therefore further support that the disclosure of Watson is limited to a broad alloy composition that includes scandium. Thus, the use of scandium is required, not an option or merely preferred embodiment. Watson does not therefore suggest that erbium, ytterbium and scandium are equivalents that can be freely substituted for one another.

II. Rejection of Claims 1-5, 7, 8, 10-16, and 27-29 under §103(a).

Applicant previously argued that the Higashi reference teaches away from using an amount of rare earth element greater than 10% because, unlike the *Titanium Metals Corp.* case that the Examiner pointed to in support, there is evidence here that the close ranges are not equivalent. Higashi teaches that using greater than 10% (col. 2, lines 46-47) would not provide the same properties by influencing the crystallization and the strength of the alloy (col. 2, lines 46-50). Therefore, the amount over 10% is not merely “wasted” as the examiner proposes but instead functions to debit the alloy and would therefore not be equivalent to using an amount that is less than 10%.

III. Rejection of Claims 1-3, 7-12, 15, 16, 26, and 27 under §103(a).

The Examiner asserts that the claimed minor alloy elements would be inherently included as impurities in the composition of EP 911. The Examiner further states that Applicant has offered no evidence that the inevitable impurities of aluminum alloys are not “minor elements.” However, the burden is on the Examiner to establish *prima facie* obviousness and that the claimed “at least one minor alloy element” comprising copper, zinc, silver, magnesium, tin, titanium, cobalt or calcium” would necessarily be present. The “ASM Specialty Handbook, Properties of Pure Aluminum” that the Examiner points to as evidence seems to merely list possible impurity elements and does not explicitly state that all the listed elements would be necessarily present in an aluminum alloy. Further, since the elements are impurities, one could not pick and choose which elements are present. Additionally, claims 28 and 29 suggest that an “alloy element” is present in greater concentrations than the impurity elements.

IV. Rejection of claims 5 and 6 under 35 U.S.C. §103(a).

As pointed out above under section I, the Watson reference does not suggest that erbium, ytterbium and scandium are equivalents that could be freely substituted for one another. Therefore, adding the teachings of Higashi does not resolve the noted issues with regard to Watson and the rejection should be withdrawn.

Closing

For the above reasons, the rejection of the claims should be reversed.

Applicant believes that no additional fees are necessary, however, the Commissioner is authorized to charge Deposit Account No. 21-0279 in the name of United Technology Corporation for any additional fees or credit the account for any overpayment.

Respectfully submitted,

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Dated: June 30, 2009

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) PA-11083-US; 67097-022			
<div style="text-align: center;">CERTIFICATE OF FACSIMILE</div> I hereby certify that this Pre-Appeal Brief Request For Review and Notice of Appeal are being facsimile transmitted to (571) 273-8300. on _____ Signature _____ Typed or printed name _____		Application Number 10/770893	Filed 2004-02-03		
		First Named Inventor Song			
		Art Unit 1793	Examiner Kessler, Christopher S.		
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <table style="width: 100%; border: none;"><tr><td style="width: 50%; vertical-align: top; padding-bottom: 10px;"><div style="margin-bottom: 10px;"><input type="checkbox"/> applicant/inventor.</div><div style="margin-bottom: 10px;"><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</div><div style="margin-bottom: 10px;"><input checked="" type="checkbox"/> attorney or agent of record. 53154 Registration number _____</div><div><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</div></td><td style="width: 50%; vertical-align: top; padding-bottom: 10px;"><div style="margin-bottom: 10px;">/Matthew L. Koziarz/ _____ Signature Matthew L. Koziarz _____ Typed or printed name</div><div style="margin-bottom: 10px;">248 988 8360 _____ Telephone number</div><div>2009-06-30 _____ Date</div></td></tr></table> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>				<div style="margin-bottom: 10px;"><input type="checkbox"/> applicant/inventor.</div> <div style="margin-bottom: 10px;"><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</div> <div style="margin-bottom: 10px;"><input checked="" type="checkbox"/> attorney or agent of record. 53154 Registration number _____</div> <div><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</div>	<div style="margin-bottom: 10px;">/Matthew L. Koziarz/ _____ Signature Matthew L. Koziarz _____ Typed or printed name</div> <div style="margin-bottom: 10px;">248 988 8360 _____ Telephone number</div> <div>2009-06-30 _____ Date</div>
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<div style="border: 1px solid black; padding: 5px;"><input checked="" type="checkbox"/> *Total of <u>1</u> forms are submitted.</div>					

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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